REMARKS:

In view of the following remarks please reconsider the current application.

The claims have not been amended as it is believed that the current claims remain distinguished from the prior art despite the Examiner's current rejections. Accordingly there remains three independent claims presented as claims 1, 10 and 16.

The current claim 1 is distinghuished from the prior art currently cited by the Examiner for many reasons.

A) Firstly claim 1 notes that the heat exchanger device includes a pump which is connected in series with the heat exchanger tubing **directly** between the outlet header of the heat exchanger and the target area. In this configuration the inlet header of the heat exchanger receives fluid therein at a point of communication farthest from the pump so that the fluid entering the heat exchanger is at low pressure for safe operation in the oil and gas industry.

B) Secondly claim 1 is distinguished in that a surge tank is provided in series with the inlet header which is specifically noted as being **at atmospheric pressure.**

C) Thirdly claim 1 is distinguished in that the surge tank is noted as communicating with the inlet header **through a feed tube** so that the surge tank and inlet header are clearly described as being separate and distinct from one another. The separate surge tank allows fluid to accumulate therein in proximity to the heat exchanger during a preheating stage.

D) Fourthly claim 1 is distinguished in that the surge tank is specifically located **on top** of the heat exchanger so that the accumulation of fluid in the surge tank prior to entering the inlet header is preheated with heat captured from the catalytic heater in an optimum manner.

Turning now to independent claim 16, a method is disclosed which is similar in scope to claim 1 noted above and accordingly includes similar distinguishing limitations.

A) Firstly claim16 is distinguished from the prior art in describing that the heat exchanger fluid is pumped **directly** from the header of the heat exchanger to the target area.

B) Secondly claim 16 is distinghuished in that a surge tank is provided in series with the inlet header which is specifically **vented to atmospheric pressure** to prevent any possibility of an explosion arising from pressure buildup.

C) Thirdly claim 16 is distinguished by noting that the surge tank communicates **through a feed tube** to the inlet header so that the surge tank is clearly defined as being separate and distinct from the inlet header of the heat exchanger. More particularly the heat exchanger fluid is noted as being **gravity fed** through the feed tube.

D) Fourthly claim 16 is distinguished in noting that the surge tank which is maintained at atmospheric and which communicates with the inlet header through a feed tube is also located to **span the top of the heat exchanger.**

Claim 10 is also distinguished from the prior art both for similar reasons noted above and for yet further distinguishing limitations.

A) Firstly claim 10 is distinguished also by noting that the heat exchanger device includes a pump which is connected in series **directly** between the outlet header and the target area. In this configuration the inlet header is farthest from the pump and is located at the lowest pressure in the flow as noted above.

B) Claim 10 is further distinguished by noting a separate surge tank which is maintained **at atmospheric pressure.**

C) Claim 10 is yet further distinguished from the prior art in noting that a temperature probe connected to the thermostatic control of the catalytic heater is specifically supported in communication with **fluid in the surge tank** as noted above which is maintained at atmospheric pressure. Locating the probe in a tank where fluid is permitted to accumulate prior to entering the heat exchanger and farthest from the pump ensures a more average reading of the flow rather than supporting the probe within a continuous flow line of the system.

The Examiner's current basis for rejecting the current claims is on the basis of an obviousness combination of US 5,851,498 to Rozenshtein and US 4,813,396 to Sargeant et al. As

described under section 2143.03 of the Manual of Patent Examining Procedure however in order to establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.

1) As noted above, all of the independent claims are limited to a pump which is connected **directly** in series between the outlet header and the target area and which pumps the heat exchanger fluid directly therebetween. No such feature is found in the prior art however.

As shown in the cited reference to Sargeant the pump designated by 104 in figure 5 is not mounted in series directly between the heat exchanger outlet and the target area but rather is connected along the junction of two parallel circuits involving the heater and the target area on separate circuits. The pump in this instance cannot be said to be coupled directly in series between the outlet header of the heat exchanger and the target area.

The cited reference to Rozenshtein discloses no pump whatsoever and clearly therefore the further limitation of locating the pump specifically to be directly in series between the heat exchanger and the target area cannot be said to be disclosed in this reference.

As neither reference discloses the limitation of the pump connection as defined in the current claims, this limitation must also be distinguished from the combination of these references.

2) Also as noted above, all of the independent claims are further limited by noting a surge tank separate from the inlet header of the heat exchanger which is specifically maintained at **atmospheric pressure**.

Neither of the cited references however disclose any form of venting or similar function which would permit the heat exchanger fluid to be maintained at atmospheric pressure. Furthermore neither reference discloses any form of separate surge tank in series with the inlet header so clearly therefore it cannot be considered obvious to further maintain the fluid in such a tank at atmospheric pressure.

In the cited reference to Rozenshtein in particular, at column 8, lines 30 to 38, it is clear that the flow of heat exchanger fluid at the inlet is under pressure, clearly in contradiction to the claim limitations of the current application.

3) Independent claims 1 and 16 in particular are further distinguished in noting that a surge tank distinct and separate from the inlet header of the heat exchanger communicates with the inlet header **through a feed tube** in series therebetween. Neither of the cited references disclose any form of a surge tank separate from the inlet header of the heat exchanger and clearly therefore there is no suggestion or motivation in either reference to further provide a feed tube connected in series therebetween as in the present invention.

4) Independent claims 1 and 16 are further distinguished in noting that the surge tank which is both maintained at atmospheric pressure and which communicates to the inlet header through a feed tube is also located to **span the top of the heat exchanger.**

As neither of the cited references disclose any form of surge tank at atmospheric pressure nor a surge tank communicating with the heat exchanger through a feed tube, clearly the additional limitation of specifically locating such a surge tank to span the top of the heat exchanger is also not shown in these cited documents.

5) Turning now to independent claim 10, the limitation of a temperature probe which is supported in the **fluid within the surge tank**, of the type with is specifically connected in series with the inlet header and which is maintained at atmospheric pressure, is also unseen in either of the Examiner's cited references.

Rozenshtein provides no direction whatsoever with regard to location of a thermostatic control or temperature probe.

At column 9, lines 34 to 38, Sargeant does mention thermostats or temperature sensing devices can be provided as shown at reference characters 113, 114 and 115 of figure 5. In each instance the temperature sensing device is clearly positioned in series with a flow line through which fluid is continually passed, not a tank. Accordingly the feature of locating the

temperature probe **in a surge tank at atmospheric pressure** is clearly distinguished from the prior art as some pressure must be present in the flow lines of Sargeant in order to maintain a flow therethrough.

In view of the many points noted above, it is respectfully submitted that the Examiner's current rejections are not in accordance with section 2143.03 of the MOPEP and accordingly the current rejections should be withdrawn. The applicant plans to appeal the current rejections on this basis if the rejections are not withdrawn.

Favorable reconsideration of this application is earnestly solicited.

Respectfully submitted
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CERTIFICATION OF FACSIMILE TRANSMISSION

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